premio
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Apollo/Shadowhawk

USER MANUAL

System Manual

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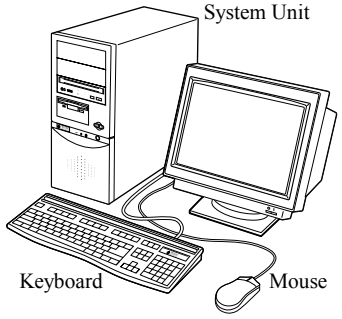
Getting Started

Your Premio® system consists of three components:

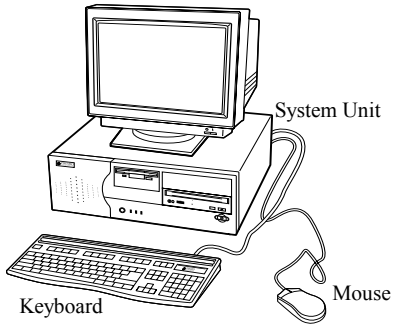
- a mid-tower or desktop system unit
- a keyboard
- a mouse

Add your choice of monitor, and your system is ready to use.

Mid-tower system



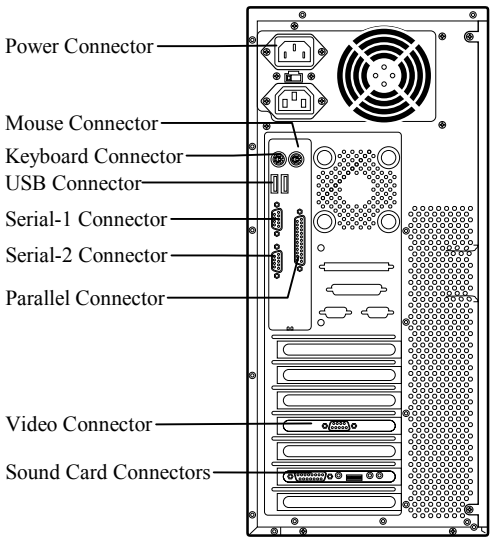
Desktop system



Setting Up

To set up your Premio system, simply connect your monitor, the mouse, the keyboard, and any additional components you want to use to the system unit.

Follow these easy steps:



1. Attach your monitor's video cable to the video connector.
2. Attach the mouse cable to the mouse connector.
3. Attach the keyboard cable to the keyboard connector.
4. Attach the cables for any additional components, such as a printer, scanner, or modem, to the respective parallel, serial, or universal serial bus (USB) connector, as directed in the component's manual.
5. If your system is equipped for multimedia, attach your speakers and microphone to the sound card connectors.
6. Plug your monitor's power cord into a power outlet.
7. Attach the female end of the system power cord to the system unit's power connector, and then plug the other end of the cord into a power outlet.

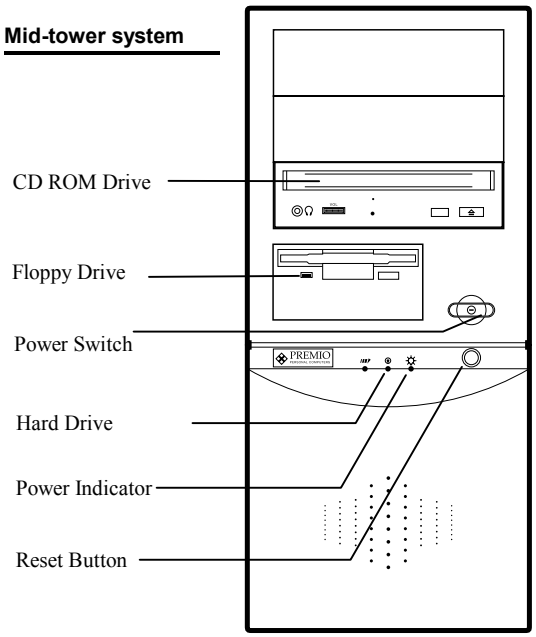
Your Premio system is now ready to use. To start the system, turn on your monitor's power switch, and then press the system power switch as shown on the next page.

Switches and Indicators

The system unit's front panel provides access to the CD-ROM and floppy drives, and to the system's switches and indicator lights.

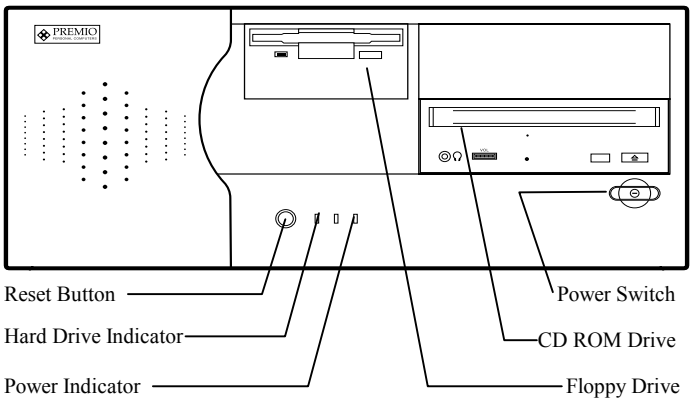
The illustration below shows a mid-tower system. If you have a desktop system, turn to the illustration on the next page.

Mid-tower system



- The **CD-ROM drive** reads information on CDs.
- The **floppy drive** reads and writes information on diskettes.
- The **power switch** turns the system on and off.
- The **hard drive indicator** lights when the hard drive is in use.
- The **power indicator** lights when the system is on.
- The **reset button** restarts the system.

Desktop system



- The **reset button** restarts the system.
- The **hard drive indicator** lights when the hard drive is in use.
- The **power indicator** lights when the system is on.
- The **power switch** turns the system on and off.
- The **CD-ROM drive** reads information on CDs.
- The **floppy drive** reads and writes information on diskettes.

Upgrading

You can upgrade your Premio system with:

- Expansion cards
- More memory
- An additional hard drive

To install an upgrade, you must open the system unit. Before proceeding, read the important cautionary note below. Then follow the steps on the next page.

Caution! *Static discharge can cause permanent damage to internal electronic components of your computer. Always use the following precautions when working inside the system unit:*

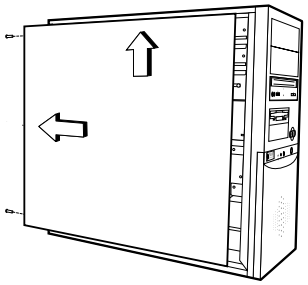
- *Wear a grounding wrist strap (available at most electronics stores) when handling electronic components.*
- *Do not remove a component from its antistatic packaging until you are ready to install it.*
- *Keep one hand in contact with the metal system case.*

Opening the System Unit

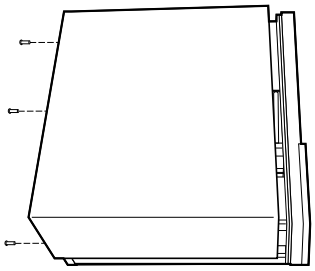
Note: *Opening the system unit could affect your warranty. Check with the dealer where you purchased your system before opening the system unit.*

To open the system unit, follow these steps:

Mid-tower system



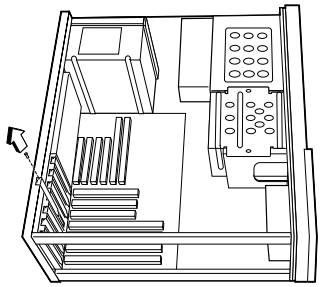
Desktop system



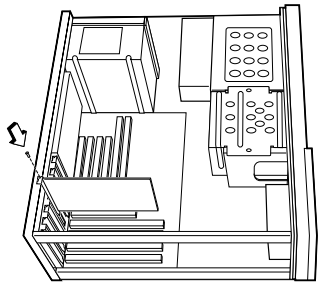
1. Turn off the system and unplug the power cord.
2. Remove the screws securing the side panel (mid-tower) or case (desktop) at the rear of the system unit.
3. Slide the side panel or case up and to the rear, and remove it.

Installing an Expansion Card

To install an expansion card, open the system unit as described on the previous page. Then follow these steps:



1 Remove the screw securing the slot bracket cover for the expansion slot you want to use. Save the screw to secure the expansion card.



2 Insert the expansion card firmly into the slot, making sure it is seated completely.

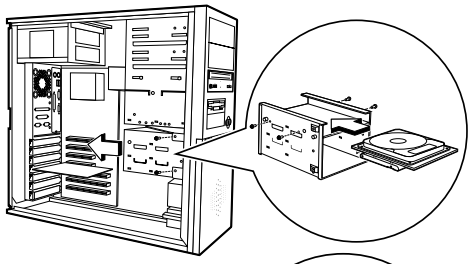
3 Secure the card with the saved screw.

Installing a Hard Drive

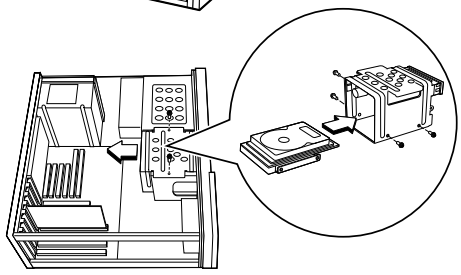
To install a hard drive in your system, follow these steps:

1. Disconnect the hard drive cable and power connector.

Mid-tower system



Desktop system



2. Remove the two screws securing the drive bay.
3. Slide the bay toward the rear of the system unit to remove it.
4. Insert the new drive into an open position in the bay and secure it with four screws.
5. Slide the bay back into the system unit and secure it with two screws.
6. Connect the cables.

Getting Help

Troubleshooting

Your Premio system is designed to provide years of trouble-free performance. If you have a problem with your system, you may wish to check the information in this section for a quick solution.

Monitor Does Not Work

If your monitor appears not to be working properly:

- Check that the monitor's power cable is securely attached to the monitor and to an outlet that is receiving power.
- Check that the monitor's video cable is securely attached to the monitor and to the system unit's video card connector.
- Check that the monitor's power switch is on.
- Adjust the monitor's brightness and contrast controls.
- If possible, substitute another monitor that is in good working order. If the substitute works, your monitor may need repair or replacement.

Keyboard Does Not Work

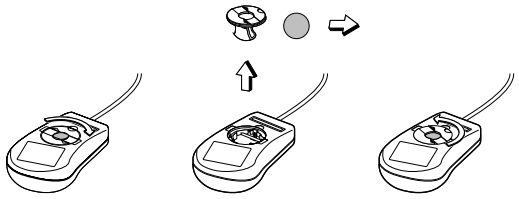
If the NumLock indicator in the upper right corner of the keyboard does not light when the system powers up, or the keyboard does not work:

- Check that the keyboard cable is securely attached to the system unit's keyboard connector.
- If possible, substitute another keyboard that is in good working order. If the substitute works, your keyboard may need replacement.

Mouse Does Not Work

If your mouse pointer does not move or moves erratically when you move the mouse:

- Check that the mouse cable is securely attached to the mouse connector on the system unit.
- Disassemble the mouse and clean the roller ball.



System Unit Problems

The fan inside the system unit should make a low, steady sound when operating properly.

If the fan is totally silent:

- Check that the system power cord is securely attached to the back of the system unit and to a power outlet. Verify that the outlet has power.
- If possible, substitute another power cord that is in good working order. If the substitute works, replace your power cord.

If the fan makes excessive noise:

- Turn off the system, open the system unit case, and inspect the fan for any obstructions.
- Turn on the system and listen closely to the fan. If the noise comes from inside the fan housing, your power supply may need replacement.

Hard Drive Problems

Your hard drive should make a slight whirring sound when operating properly.

If the drive is totally silent:

- Turn off the system, open the system unit case, and check that the power cable between the power supply and the hard drive is securely attached at both ends. If it is, your hard drive may be defective.

If the hard drive makes excessive noise:

- Turn off the system, open the system unit case, and remove the hard drive power cable connector from the hard drive. Then turn the system back on. If the noise disappears, your hard drive may be defective.
- If you have more than one hard drive, repeat the same procedure for each drive.

Technical Support

You can contact Premio technical support at the following address:

Premio Computer, Inc.
918 Radecki Court
City of Industry, CA 91748

Telephone: 626.839.3100
Fax: 626.839.3191
Email: support@premiopc.com
Web page: http://support.premiopc.com

Premio on the Internet

Premio maintains a web page on the Internet with the latest information on Premio products, updated drivers, answers to common problems, a troubleshooting guide, and more. Visit our web page at:

http://www.premiopc.com

Appendix

Warranty Policy

Premio Computer, Inc. warrants its line of Premio® computer systems to be free from defects in material and workmanship for a specific warranted period as stated below, from the date of original purchase from Premio Computer, Inc. or a Premio Computer, Inc. authorized reseller. This warranty is contingent upon proper use of the product in question and does not cover products which have been modified or which have been subjected to unusual physical or electrical stress. Warranty for third party hardware and software, if any, is subject to the third party's warranty policy. Please refer to the following for length of warranty for Premio's product line.

Premio Product	**Warranty**
Complete Premio System with monitor	3 years parts and labor
Premio Barebone (with or without CPU)	2 years parts and labor
Premio Monitor	2 year parts and labor
Premio OEM Component (motherboard, speaker, case, keyboard, mouse, floppy drive, CD-ROM, etc.)	2 years parts and labor

Service Under Warranty

If this product fails to be in good working order during the warranty period (or specific period of time as noted above), Premio Computer, Inc. will, at its option, repair or replace the product. Repair parts and/or replacement products may be either new or reconditioned at Premio Computer Inc.'s discretion. The limited warranty does not include service or repair for damage from improper installation, abuse or modifications to the product not approved in writing by Premio Computer, Inc. Any service repair outside the scope of this limited warranty will be at Premio Computer, Inc.'s or its Authorized Service Provider's rates and terms in effect. This warranty is valid only within the United States, Puerto Rico, Canada, Mexico and South America.

Exclusions from Limited Warranty Programs

All other expressed and implied warranties for this product are hereby disclaimed. If this product is not in good working order as warranted above, Premio Computer's sole and exclusive remedy shall be repair or replacement as stated above. In no event will Premio Computer, Inc. be liable to the customer or any third party for any damages in excess of the purchase price of the product. This limitation applies to damages of any kind including any direct or indirect damages, lost profits, lost savings or other special, incidental or consequential damages. This holds true for situations even if Premio Computer, Inc. or an authorized Premio representative or dealer has been advised of the possibility of such damages or of any claim by another party. Some states do not allow the exclusion or limitation of incidental or consequential damages for some products, so the above limitation or exclusion may not apply to you. Premio Computer, Inc. authorized resellers and service providers/partners may be changed, added or deleted, without notice or liability. Premio Computer, Inc. disclaims any authorized resellers and service provider/partner to the program. This warranty gives you specific legal rights and you may also have other rights, which may vary from state to state.

FCC Standards

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Important Safety Instructions

These instructions are provided by Underwriters Laboratories, Inc.

1. Read all of these instructions and save them for later reference.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
6. Slots and openings on the cabinet and the back or bottom are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, do not block or cover these openings. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. This product is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be walked on.
10. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating. Also, make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts

that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

12. Except as explained elsewhere in this manual, don't attempt to service this product yourself. Opening and removing those covers that are marked “Do Not Remove” may expose you to dangerous voltage points or other risks. Refer all servicing on those compartments to service personnel.
13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    A. When the power cord or plug is damaged or frayed.
    B. If liquid has been spilled into the product.
    C. If the product has been exposed to rain or water.
    D. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    E. If the product has been dropped or the cabinet has been damaged.
    F. If the product exhibits a distinct change in performance, indicating a need for service.

MSI

MICRO-STAR INTERNATIONAL

MS-6528 LE ATX Mainboard

Version 1.0
G52-MA00429

Manual Rev: 1.0
Release Date: August 2001

CE N1996

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Notice 1
The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2
Shielded interface cables and A.C. power cord, if any, must be used in order to comply with the emission limits.

VOIR LA NOTICE D'INSTALLATION AVANT DE RACCORDER AU RESEAU.

Micro-Star International MS-6528 LE

FC **Tested to comply with FCC Standard**

For Home or Office Use

Edition
August 2001

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Windows 95/98/2000 and Windows NT are registered trademarks of Microsoft.
Netware is a registered trademark of Novell.
Award is a registered trademark of Award Software Inc.

Revision History

Revision	Revision History	Date
V1.0	First release	August 2001

Safety Instructions

1. Always read the safety instructions carefully.
2. Keep this User's Manual for future reference.
3. Keep this equipment away from humidity.
4. Lay this equipment on a reliable flat surface before setting it up.
5. The openings on the enclosure are for air convection hence protects the equipment from overheating. DO NOT COVER THE OPENINGS.
6. Make sure the voltage of the power source and adjust properly 110/220V before connecting the equipment to the power inlet.
7. Place the power cord such a way that people can not step on it. Do not place anything over the power cord.
8. Always Unplug the Power Cord before inserting any add-on card or module.
9. All cautions and warnings on the equipment should be noted.
10. Never pour any liquid into the opening that could damage or cause electrical shock.
11. If any of the following situations arises, get the equipment checked by a service personnel:
    - The power cord or plug is damaged
    - Liquid has penetrated into the equipment
    - The equipment has been exposed to moisture
    - The equipment has not work well or you can not get it work according to User's Manual.
    - The equipment has dropped and damaged
    - If the equipment has obvious sign of breakage
12. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT UNCONDITIONED, STORAGE TEMPERATURE ABOVE 60^0C (140^0F), IT MAY DAMAGE THE EQUIPMENT.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

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Introduction 1

The MS-6528 LE ATX mainboard is a high-performance computer mainboard based on **Intel® 82845 & 82801BA** chipsets. It is optimized to support Intel® Pentium® 4 processor in the 478 pin package that delivers a high performance and professional desktop platform solution.

The Intel® 82845 Memory Controller Hub (MCH) provides the processor interface, SDRAM interface, AGP interface and hub interface. It supports: a single processor with a data transfer rate of 400MHz, SDRAM at 133MHz operation (PC133), AGTL+ host bus with integrated termination supporting 32-bit host addressing, 1.5V AGP interface with 4x data transfer and 4x fast write capability, and 8-bit, 66MHz 4x hub interface to the Intel ICH2.

The 82801BA I/O Controller Hub 2 (ICH2) provides the I/O subsystem with access to the rest of the system and additionally integrates many I/O functions. It supports: upstream hub interface for access to the Intel MCH, 2-channel Ultra ATA/100 bus master IDE controller, USB controller 1.1 (expanded capabilities for 4 ports), I/O APIC, SMBus controller, FWH interface, LPC interface, AC'97 2.1 interface, PCI 2.2 interface, and integrated system management controller.

This chapter includes the following topics:

Mainboard Specifications	1-2
Mainboard Layout	1-4
Quick Components Guide	1-5
Connectors & Jumpers	1-6
Back Panel	1-8

Mainboard Specifications

CPU

- Supports Intel® Pentium® 4 processor in the 478 pin package.
- Supports 1.3GHz, 1.4GHz, 1.5GHz, 1.6GHz, 1.7GHz, 1.8GHz, 1.9GHz, 2GHz and up.

Chipset

- Intel® 845 chipset (593 FC-BGA)
  - Supports a single processor with a data transfer rate of 400MHz.
  - Supports SDRAM at 133MHz operation (PC133).
  - AGTL+ host bus with integrated termination supporting 32-bit host addressing.
  - 1.5V AGP interface with 4x data transfer and 4x fast write capability.
  - 8-bit, 66MHz 4x hub interface to the Intel ICH2.
- Intel® ICH2 chipset (360 EBGA)
  - Upstream hub interface for access to the Intel MCH.
  - 2-channel Ultra ATA/100 Bus Master IDE controller.
  - USB controller 1.1 (expanded capabilities for 4 ports).
  - I/O APIC.
  - SMBus controller.
  - FWH interface.
  - LPC interface.
  - AC'97 2.1 interface.
  - PCI 2.2 interface.
  - Integrated system management controller.

Main Memory

- Supports three PC133 SDRAM sockets.
- Supports up to 3GB memory size.

Slots

- One AGP (Accelerated Graphics Port) 4x slot.
- Six PCI 2.2 32-bit PCI bus slots (support 3.3v/5v PCI bus interface).
- One CNR (Communication Network Riser) slot.

On-Board IDE

- An IDE controller on the ICH2 chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA66/100 operation modes.
- Can connect up to four IDE devices.

On-Board Peripherals

- On-Board Peripherals include:
  - 1 floppy port supports 2 FDDs with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
  - 2 serial ports (COM A + COM B)
  - 1 parallel port supports SPP/EPP/ECP mode
  - 4 USB ports (Rear * 2/ Front * 2)
  - 1 audio/game port

Audio

- C-Media CMI8738 / PCI-6ch supports 2/4/6 ch speaker (optional)

BIOS

- The mainboard BIOS provides "Plug & Play" BIOS which detects the peripheral devices and expansion cards of the board automatically.
- The mainboard provides a Desktop Management Interface (DMI) function which records your mainboard specifications.

Dimension

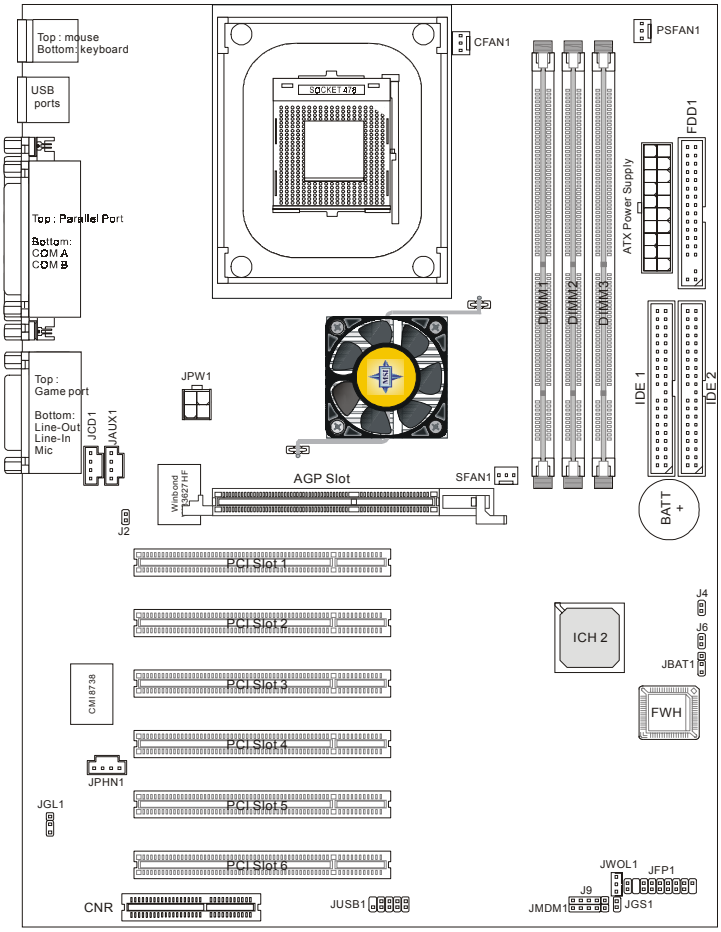
- ATX Form Factor 30.5cm x 23cm

Mounting

- 6 mounting holes

Chapter 1

Mainboard Layout



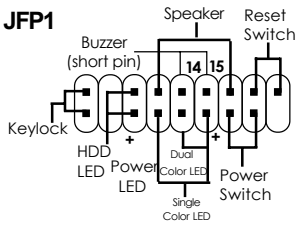
MS-6528 LE ATX Mainboard

Quick Components Guide

Component	Function
JWR1	ATX 20-pin power connector
JPW1	ATX 12V power connector
JKBMS1	Mouse connector
JKBMS1	Keyboard connector
USB Connectors	Connecting to USB devices
COM A & COM B	Serial port connector
LPT1	Parallel port connector
FDD1	Floppy disk drive connector
J9	IrDA infrared module connector
IDE1~ IDE2	Hard disk connectors
JFP1	Case connector
JCD1	CD-in connector
JAUX1	Aux line-in connector
JPHN1	Modem-in connector
JGL1	Power saving LED connector
J2	TOP Tech. III
JGS1	Power saving switch connector
JMDM1	Wake on ring connector
JWOL1	Wake on LAN connector
CPU/PS/SYS FAN	Fan power connectors
JUSB1	Connecting to USB devices
J8 (optional)	D-Bracket connector
J4	Chassis intrusion switch connector
JBAT1	Clear CMOS jumper
J6	BIOS flash jumper
AGP Slot	Connecting to AGP cards
PCI Slots	Connecting to expansion cards
CNR Slot	Connecting to expansion cards

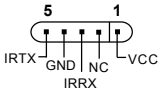
Connectors & Jumpers

JFP1



The Keylock, Power Switch, Reset Switch, Power LED, Speaker, and HDD LED are all connected to the JFP1 connector block.
If Onboard Buzzer is available, then:
Short pin 14-15: Onboard Buzzer Enabled
Open pin 14-15: Onboard Buzzer Disabled

J9



This connector is for optional wireless transmitting and receiving infrared module.

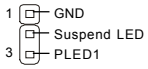
J6

Use the jumper to lock or unlock the boot block area on BIOS. When unlocked, the BIOS boot block area can be updated.

JBAT1

A battery must be used to retain the mainboard configuration in CMOS RAM. Short 1-2 pins of JBAT1 to store the CMOS data.

JGL1



This connector is used to connect the power saving LED.

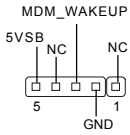
JGS1

Attach a power saving switch to JGS1. When the switch is pressed, the system immediately enters the suspend/sleep mode.

J4

Connect a 2-pin chassis intrusion switch to the connector.

JMDM1



This connector allows you to connect to a modem card with Wake On Ring function. The connector will power up the system when a signal is received through the modem card.

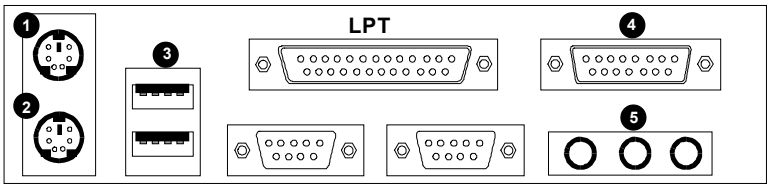
JWOL1

This connector allows you to connect to a LAN card with Wake On LAN function. You can wake up the computer via remote control through a local area network.

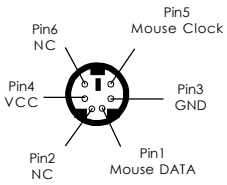
JUSB1

The mainboard provides an additional USB front header for you to connect extra USB devices.

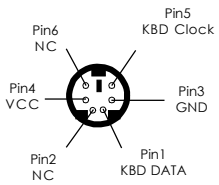
Back Panel



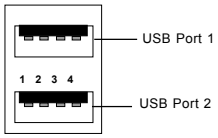
1 Mouse Connector



2 Keyboard Connector

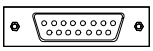


3 USB Ports

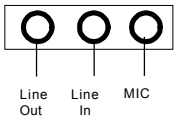


PIN	SIGNAL
1	VCC
2	-Data
3	+Data
4	GND

4 Midi/Joystick



5 Audio Ports



AWARD® BIOS Setup 2

The mainboard uses AWARD® BIOS ROM that provides a Setup utility for users to modify the basic system configuration. The information is stored in a battery-backed CMOS RAM so it retains the Setup information when the power is turned off.

This chapter provides you with the overview of the BIOS Setup program. It contains the following topics:

Entering Setup	2-2
Control Keys	2-2
Getting Help	2-3
The Main Menu	2-4
Standard CMOS Features	2-5
Advanced BIOS Features	2-6
Advanced Chipset Features	2-7
Integrated Peripherals	2-8
Power Management Setup	2-9
PNP/PCI Configurations	2-10
PC Health Status	2-11
Frequency/Voltage Control	2-12
Load High Performance Defaults	2-13
Load BIOS Setup Defaults	2-14
Set Supervisor/User Password	2-15
Save & Exit Setup	2-17
Exit Without Saving	2-18

Entering Setup

Power on the computer. When the below message appears briefly at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press <Ctrl>, <Alt>, and <Esc> keys to enter Setup.

TO ENTER SETUP BEFORE BOOT, PRESS <CTRL-ALT-ESC>
OR <DEL> KEY

If the message disappears before you respond and you still wish to enter Setup, restart the system by turning it OFF then On or pressing the RESET button to try again. You may also restart by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys.

Control Keys

<↑>	Move to the previous item
<↓>	Move to the next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<Enter>	Select the item
<Esc>	Jumps to the Exit menu or returns to the main menu from a submenu
<+/PU>	Increase the numeric value or make changes
<-/PD>	Decrease the numeric value or make changes
<F1>	General help, only for Status Page Setup Menu and Option Page Setup Menu
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Load the default CMOS value from Fail-Safe default table, only for Option Page Setup Menu
<F7>	Load Optimized defaults
<F10>	Save all the CMOS changes and exit

Getting Help

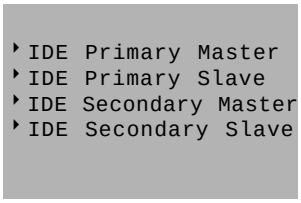
After entering the Setup menu, the first menu you will see is the Main Menu.

Main Menu

The main menu lists the setup functions you can make changes to. You can use the control keys (↑↓) to select the item. The on-line description of the highlighted setup function is displayed at the bottom of the screen.

Sub-Menu

If you find a right pointer symbol (as shown in the right view) appears to the left of certain fields that means a sub-menu containing additional options can be launched from this field. You can use control keys (↑↓) to highlight the field and press <Enter> to call up the sub-menu. Then you can use the control keys to enter values and move from field to field within a sub-menu. If you want to return to the main menu, just press <Esc >.

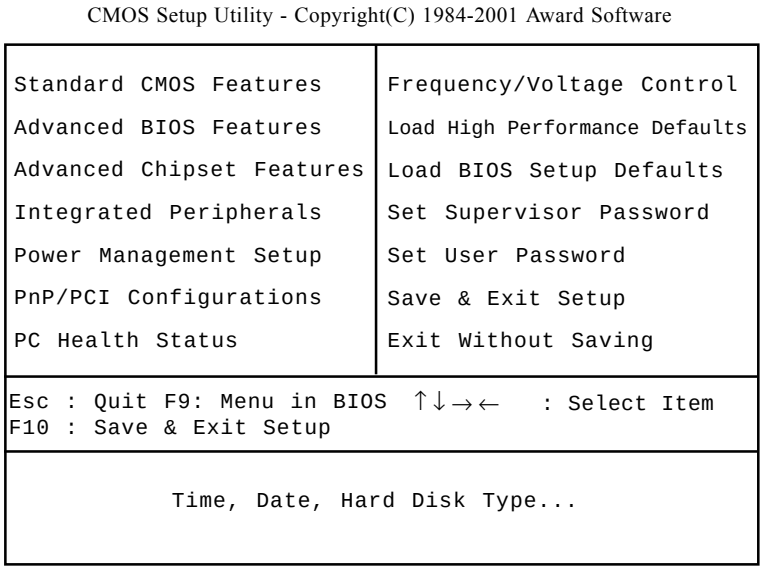


General Help <F1>

The BIOS setup program provides a General Help screen. You can call up this screen from any menu by simply pressing <F1>. The Help screen lists the appropriate keys to use and the possible selections for the highlighted item. Press <Esc> to exit the Help screen.

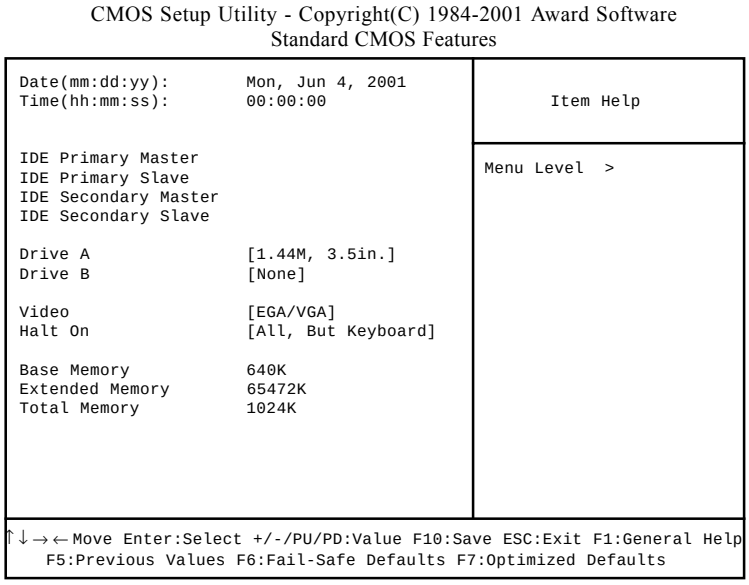
The Main Menu

Once you enter Award® BIOS CMOS Setup Utility, the Main Menu (Figure 1) will appear on the screen. The Main Menu allows you to select from twelve setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.


CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
Standard CMOS Features
Advanced BIOS Features
Advanced Chipset Features
Integrated Peripherals
Power Management Setup
PnP/PCI Configurations
PC Health Status
Frequency/Voltage Control
Load High Performance Defaults
Load BIOS Setup Defaults
Set Supervisor Password
Set User Password
Save & Exit Setup
Exit Without Saving
Esc : Quit F9: Menu in BIOS ↑↓→← : Select Item
F10 : Save & Exit Setup
Time, Date, Hard Disk Type...

Standard CMOS Features

The items in Standard CMOS Features Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.



Advanced BIOS Features

CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
Advanced BIOS Features

Anti-Virus Protection	[Disabled]	Item Help
CPU L1 & L2 Cache	[Enabled]	
Quick Boot	[Enabled]	
Promise & SCSI Boot Order	[Promise,SCSI]	
1st Boot Device	[Floppy]	Menu Level >
2nd Boot Device	[HDD-0]	
3rd Boot Device	[CDROM]	
Boot Other Device	[Enabled]	
Swap Floppy	[Disabled]	
Seek Floppy	[Disabled]	
Boot Up Num-Lock LED	[On]	
Gate A20 Option	[Fast]	
Typematic Rate Setting	[Disabled]	
x Typematic Rate (Chars/Sec)	6	
x Typematic Delay (Msec)	250	
Security Option	[Setup]	
APIC Mode	[Enabled]	
MPS Version Control For OS	[1.1]	
Boot OS/2 for DRAM > 64MB	[No]	
Hard Disk S.M.A.R.T.	[Disabled]	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Advanced Chipset Features

The Advanced Chipset Features Setup option is used to change the values of the chipset registers. These registers control most of the system options in the computer.

Choose the "ADVANCED CHIPSET FEATURES" from the Main Menu and the following screen will appear.

CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
Advanced Chipset Features

Configure DRAM Timing	[By SPD]	Item Help
CAS# Latency	[3]	
Precharge Delay	[6]	
RAS# to CAS# Delay	[3]	Menu Level >
RAS# Precharge	[3]	
DRAM Data Integrity Mode	[Non-ECC]	
Memory Hole At 15M-16M	[Disabled]	
Delayed Transaction	[Enabled]	
AGP Aperture Size (MB)	[64]	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Note: Change these settings only if you are familiar with the chipset.

Integrated Peripherals

CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
Integrated Peripherals

On-Chip Primary PCI IDE	[Enabled]	Item Help
On-Chip Secondary PCI IDE	[Enabled]	
IDE Primary Master PIO	[Auto]	
IDE Primary Slave PIO	[Auto]	Menu Level >
IDE Secondary Master PIO	[Auto]	
IDE Secondary Slave PIO	[Auto]	
IDE Primary Master UDMA	[Auto]	
IDE Primary Slave UDMA	[Auto]	
IDE Secondary Master UDMA	[Auto]	
IDE Secondary Slave UDMA	[Auto]	
USB Controller	[Enabled]	
USB Keyboard Support	[Disabled]	
Init Display First	[AGP]	
AC'97 Audio	[Auto]	
AC'97 Modem	[Auto]	
Onboard Sound Chip	[Enabled]	
IDE RAID Controller	[Enabled]	
IDE HDD Block Mode	[Enabled]	
Floppy Controller	[Enabled]	
Serial Port A	[3F8/IRQ4]	
Serial Port B	[2F8/IRQ3]	
Serial Port B Mode	[Normal]	
RxD, TxD Active	[Hi,Lo]	
IR Transmission Delay	[Enabled]	
IR Duplex Mode	[Half]	
IR Pin Select	[IR-Rx2Tx2]	
Parallel Port	[378/IRQ7]	
Parallel Port Mode	[ECP]	
EPP Version	[1.7]	
ECP Mode Use DMA	[3]	
Onboard Game Port	[201]	
Onboard Midi Port	[330]	
Midi IRQ Select	[10]	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Power Management Setup

The Power Management Setup allows you to configure you system to most effectively save energy while operating in a manner consistent with your own style of computer use.

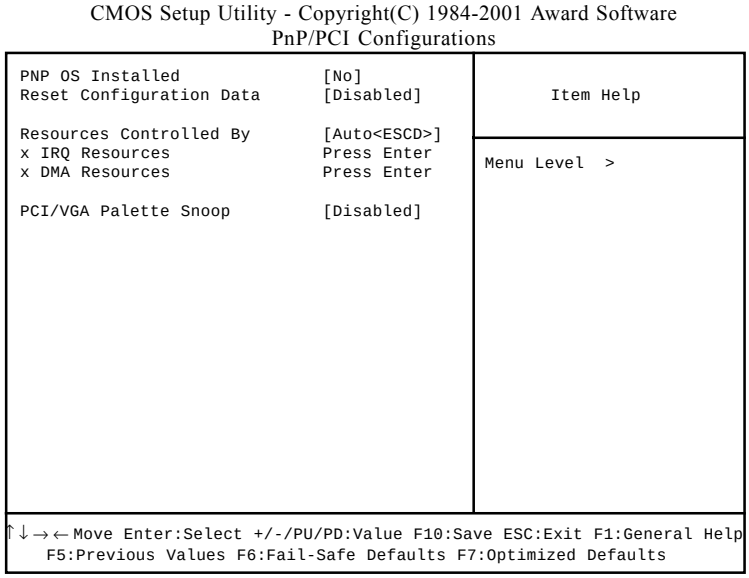
CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
Power Management Setup

IPCA Function	[Enabled]	Item Help
ACPI Standby State	[S1/POS]	
Power Management/APM	[User Define]	
Modem Use IRQ	[3]	
Suspend Time Out	[Disabled]	Menu Level >
Power Button Function	[Power Off]	
Wake Up On PME	[Disabled]	
Wake Up On Ring	[Enabled]	
Wake Up On LAN	[Enabled]	
USB Wakeup From S3	[Disabled]	
CPU THRM-Throttling	[50.0%]	
Resume By RTC Alarm	[Disabled]	
x Date(of Month) Alarm	0	
x Date(hh:mm:ss) Alarm	0 : 0 : 0	
POWER ON Function	[Button Only]	
KB Power On Password	[Enter]	
Hot Key Power ON	[Ctrl-F1]	
Power Again	[Power Off]	
Sleep State LED	[Single]	
Reload Global Timer Events		
Primary Master IDE	[Disabled]	
Primary Slave IDE	[Disabled]	
Secondary Master IDE	[Disabled]	
Secondary Slave IDE	[Disabled]	
FDC/LPT/COM Ports	[Disabled]	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

PNP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or **P**ersonal **C**omputer **I**nterconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.


CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
PnP/PCI Configurations
PNP OS Installed [No]
Reset Configuration Data [Disabled]
Resources Controlled By [Auto<ESCD>]
x IRQ Resources Press Enter
x DMA Resources Press Enter
PCI/VGA Palette Snoop [Disabled]
Item Help
Menu Level >
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

PC Health Status

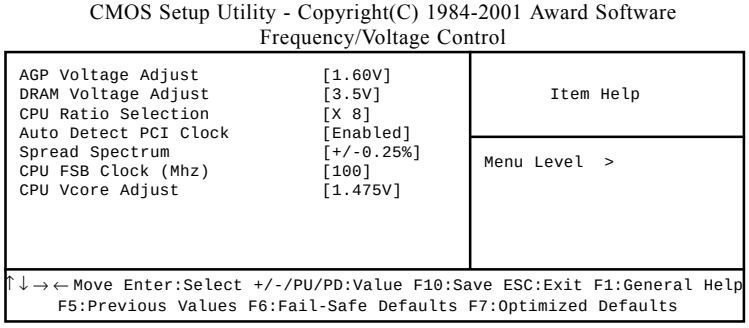
This section shows the status of your CPU, fan, warning for overall system status.

CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
PC Health Status

Current System Temp.	32°C/89°F	Item Help
Current CPU Temperature	48°C/122°F	
Current Top Tech. III Temp.	NA	
SYSTEM fan	0	
POWER fan	0	Menu Level >
CPU fan	4963RPM	
Vcore	1.71V	
3.3V	3.32V	
+5V	4.91V	
+12V	11.61V	
-12V	-12.69V	
-5V	-5.14V	
VBAT(V)	3.21V	
5VSB(V)	4.94V	
Chassis Intrusion Detect	[Disabled]	
CPU Critical Temperature	[Disabled]	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

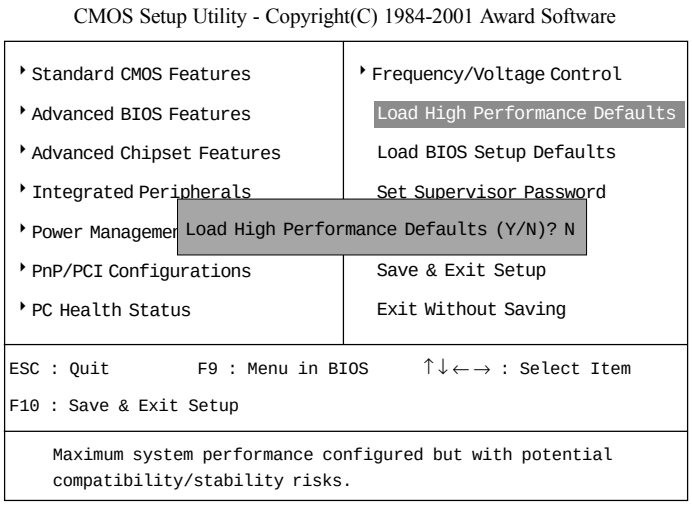
Frequency/Voltage Control


CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
Frequency/Voltage Control
AGP Voltage Adjust [1.60V]
DRAM Voltage Adjust [3.5V]
CPU Ratio Selection [X 8]
Auto Detect PCI Clock [Enabled]
Spread Spectrum [+/-0.25%]
CPU FSB Clock (Mhz) [100]
CPU Vcore Adjust [1.475V]
Item Help
Menu Level >
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Load High Performance Defaults

This option on the main menu allows users to restore all the BIOS settings to the default High Performance values. The High Performance Defaults are the default values set by the mainboard manufacturer specifically for optimal system performance. To optimize the system performance, techniques like CPU overclocking are applied. Please make sure, however, that your components are able to tolerate the abnormal settings while doing overclocking. Any attempt to operate beyond product specifications is not recommended. We do not guarantee the damages or risks caused by inadequate operation or beyond product specifications.

When you select Load High Performance Defaults, a message as below appears:


CMOS Setup Utility - Copyright(C) 1984-2001 Award Software
Standard CMOS Features
Advanced BIOS Features
Advanced Chipset Features
Integrated Peripherals
Power Managemer
PnP/PCI Configurations
PC Health Status
Frequency/Voltage Control
Load High Performance Defaults
Load BIOS Setup Defaults
Set Supervisor Password
Load High Performance Defaults (Y/N)? N
Save & Exit Setup
Exit Without Saving
ESC : Quit
F9 : Menu in BIOS
↑↓←→ : Select Item
F10 : Save & Exit Setup
Maximum system performance configured but with potential compatibility/stability risks.

Pressing *Y* loads the BIOS default values for optimal, high performance system operations.

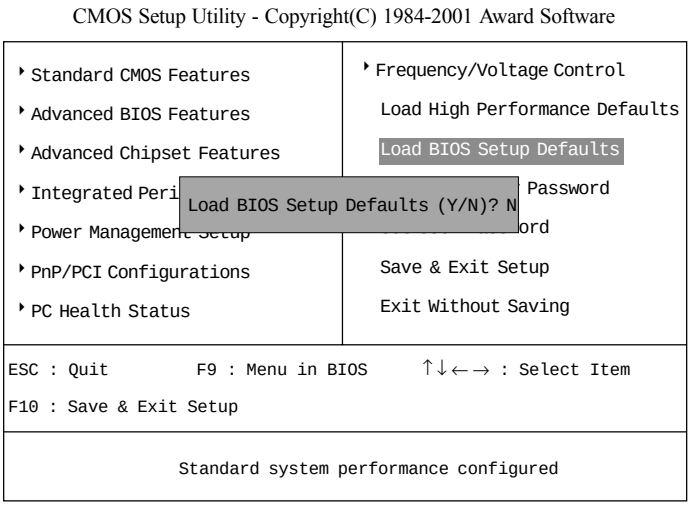
WARNING!

This setting is for experienced or overclocking users only. If the system crashes or hangs after enabling the feature, please CLEAR CMOS DATA to resolve the problem. For more information, refer to Clear CMOS Jumper: JBAT1 in Chapter 1.

Load BIOS Setup Defaults

This option on the main menu allows users to restore all the BIOS settings to the default BIOS Setup values. The BIOS Setup Defaults are the default values set by the mainboard manufacturer specifically for minimal/stable system performance.

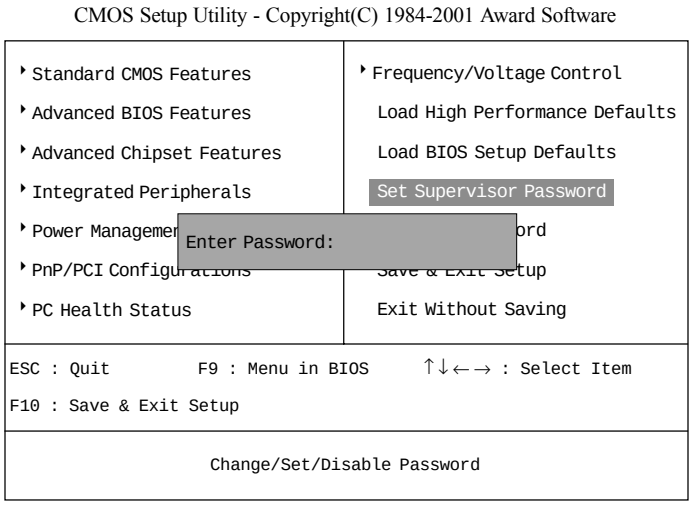
When you select Load BIOS Setup Defaults, a message as below appears:



Pressing *Y* loads the BIOS default values for the most stable, minimal system performance.

Set Supervisor/User Password

When you select this function, a message as below will appear on the screen:



Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously set password from CMOS memory. You will be prompted to confirm the password. Re-type the password and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To clear a set password, just press <Enter> when you are prompted to enter the password. A message will show up confirming the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup without entering any password.

When a password has been set, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also have BIOS to request a password each time the system is booted. This would prevent unauthorized use of your computer. The setting to determine when the password prompt is

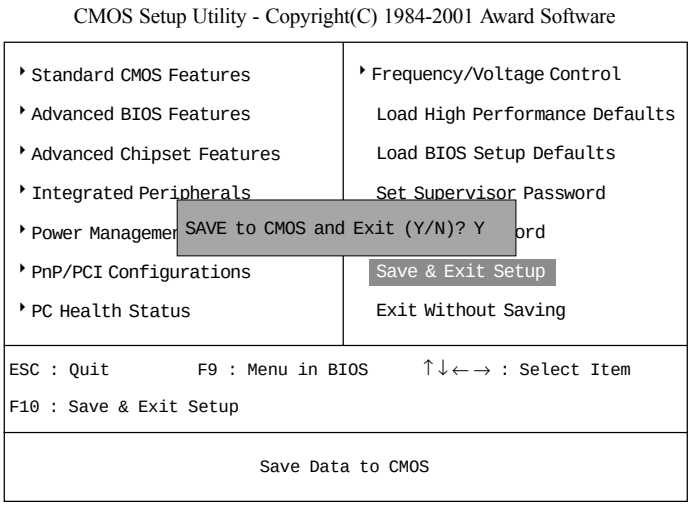
required is the Security Option of the Advanced BIOS Features menu. If the Security Option is set to *System*, the password is required both at boot and at entry to Setup. If set to *Setup*, password prompt only occurs when trying to enter Setup.

About Supervisor Password & User Password:

Supervisor password :	*Can enter and change the settings of the setup menus.*
User password:	*Can only enter but do not have the right to change the settings of the setup menus*

Save & Exit Setup

When you want to quit the Setup menu, you can select this option to save the changes and quit. A message as below will appear on the screen:

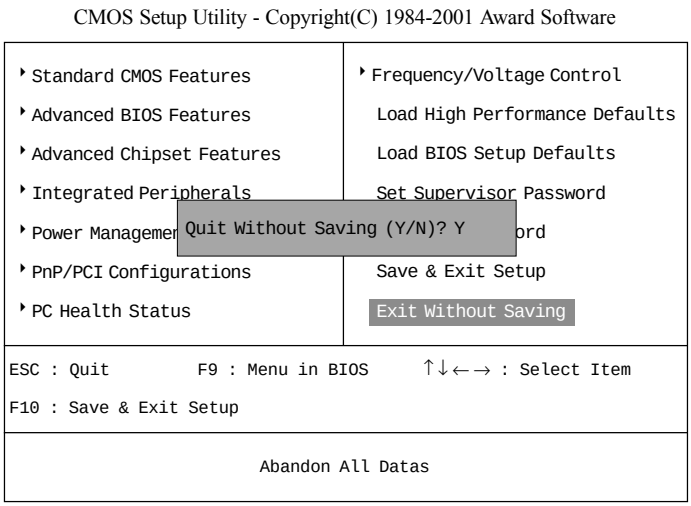


Typing "Y" will allow you to quit the Setup Utility and save the user setup changes to RTC CMOS.

Typing "N" will return to the Setup Utility.

Exit Without Saving

When you want to quit the Setup menu, you can select this option to abandon the changes. A message as below will appear on the screen:



Typing "Y" will allow you to quit the Setup Utility without saving any changes to RTC CMOS.

Typing "N" will return to the Setup Utility.